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ARTICLE

“We committed ten of our number to the silent tomb”: The archaeological evidence of the Walnut Creek massacre, Kansas (14BT301)

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Heavy rains and subsequent bank erosion in 1973 exposed the skeletal remains of 10 men and boys on Walnut Creek in Barton County, Kansas. The site (14BT301) has not been fully reported, and this effort is a step in that direction. The human remains were determined to include two men of African ancestry, and eight of white Euro-American ancestry. Historical research determined the burials are associated with the so-called Walnut Creek massacre where 10 teamsters were killed by Kiowa and Arapaho on 18 July 1864. Artifacts related to clothing they were wearing when interred are analyzed and reported. Thirteen iron projectile points that likely contributed to the deaths of the 10 are also analyzed and reported. The analytical results are compared to a rich historic documentary record which illustrates that travel on the Santa Fe Trail was not always benign.

KEYWORDS Indian Wars, conflict archaeology, metal arrowheads, buttons, human remains, Santa Fe Trail archaeology

Introduction

Conflict along overland trails running through the Great Plains was common in the late 1850s and well into the 1860s. Native American raiding of wagon trains and other travelers resulted in the loss of horses, mules, and oxen along with other goods, not to mention the wounding or death of both trail travelers and warriors. A majority of deaths on all overland trails was the result of disease and accidents but a significant number was due to conflict with Native Americans trying to

stem an ever rising tide of traders, emigrants, and settlers who were disrupting their way of life. Violent conflict between disparate groups with differing world views is nothing new. A raid on a wagon train on 18 July 1864 on Walnut Creek resulted in the deaths of 10 teamsters and the wounding of another five. One Indian may have been killed in the attack. Their story from the purview of historical archaeology and the physical evidence of their deaths is the subject of this effort.

The warriors' attack on the wagon train on 18 July 1864 is a tragic episode in the larger context of the Indian Wars on the Central Plains in the 1860s. As with any event of this nature the underlying causes are myriad and complex. Simply stated, the Fort Atkinson Treaty of 1853 with the Kiowa and Arapaho guaranteed certain annuities were to be given to the tribes every year. This required the establishment of agencies or locations where the annuity goods could be distributed. Fort Larned, Kansas became one of those locations. With the advent of the Civil War and the withdrawal of regular army troops from western posts a void occurred in Indian relations with the federal government. The Civil War placed Indian relations on the back burner with a result that annuities were not distributed in either the quality nor the quantity required by the treaty. This left the Kiowa and Arapaho as well as other Native American groups deprived of adequate supplies for overwintering on the Plains. Concomitantly, the once reliable bison herds were diminishing due to overhunting by white trail travelers and settlers, leaving the Native Americans of the Central Plains with limited natural resources on which to fall back. Another complicating factor was the garrisoning of the western forts with state volunteers who were Federalized for Civil War service. Many volunteer commanders as well as their officers and men were not versed in Indian policy and many were outwardly antagonistic to Native Americans in general. These factors and others combined to force the tribes along the Santa Fe Trail into increased raiding to obtain food and usable goods to sustain themselves (Chalfant 2010; Unrau 1957). The Walnut Creek wagon train raid epitomizes the complex social and political changes and pressures under which the Plains tribes and the Kiowa and Arapaho labored in the summer of 1864.

Discovery of 14BT301

Heavy rains in the spring of 1973 created floods on the creeks and rivers surrounding Great Bend, Kansas. Walnut Creek was one of the tributary creeks that experienced flooding (Figures 1 and 2). That high water episode also caused significant bank erosion along the creek. Not too distant from the site of Alison's Ranch and Fort Zarah (14BT301) on a bend of Walnut Creek the receding floodwaters washed away upwards of 20 m of the creek bank and exposed human remains. Initially, the Barton County Sheriff was contacted and he investigated the site. Law enforcement officers presumed the site was some sort of mass murder and began, rather unsystematically, collecting skulls and other bones. Discovery of historic iron arrowheads changed the story from a modern clandestine burial site to an archaeological mystery beyond the domain of law enforcement. State archaeologist Tom Witty with the aid of other Kansas State Historical Society staff members and



FIGURE 1 The Walnut Creek massacre burial site was located on this bend of the creek (Google Earth image).



FIGURE 2 Looking north along the bend of Walnut Creek toward the 1973 excavation area (KSHS image).

volunteers began formal archaeological salvage and recovery excavations at the site on 4 April 1973.

Witty designated the burial location as Area 731 of the Alison Ranch and Fort Zarah site (Barry 1971). The team recovered the remains of eight individuals, designated Burials 1 through 8, in a large grave pit. Two burials, later designated Burials 9 and 10, had been exhumed from a separate grave pit by law enforcement.

A brief history

The finding of the skeletal remains engendered a good deal of speculation in media accounts at the time of discovery. The find also stimulated researchers to delve into the historic documents and accounts to place the site in proper historical context. That context has been addressed in a number of publications (cf. Walnut Creek Massacre, <https://www.kshs.org/kansapedia/walnut-creek-massacre/12139>; Broome 2013:61–62; Del Bene 2016; Schulz 1996:100–103) with varying degrees of accuracy. Over time the attack has been attributed to Kiowa, Kiowa-Apache, Arapaho, Cheyenne, and Brule Sioux (Leavenworth Daily Times, 29 July 1864; Brownsville Advertiser (Nebraska), 4 August 1864; St. Louis Globe Democrat, 22 April 1890; Topeka Daily Capital, 4 May 1906). In truth the attack was perpetrated by a group of young Kiowa warriors perhaps with a few allied Arapaho warriors (Nye 1968:10).

One of those purporting the attack to have been made by the Sioux was one survivor, Robert McGee. His is one of the more sensational elements of the story as the 14-year-old survived being wounded and scalped. He reported he was severely wounded by two arrows and several gun shots, and was scalped while alive (Figure 3). He survived and made a part-time living exhibiting himself for many years (Del Bene 2016, St. Louis Globe Democrat, 22 April 1890). Yet his story of survival from horrific wounds and scalping is not unique or even the only one related to the Walnut Creek incident.

There are several firsthand accounts of the wagon train attack, one of which comes from wagon master Jerome. E. Crow who owned one of the two trains traveling together. In a letter dated July 17 [sic 19], 1864 to his wife, and subsequently published in the Nebraska Advertiser, 4 August 1864, he reported:

On the morning of the 18th a short time before day Dock Brockman reported to me that there were three Indians at the Herd. We immediately drove them in hitched up and rolled out, all in good hopes. But alas what a sad reality were awaiting us? We traveled for a few miles near the above named creek and behold out came 120 Indians dashing down the whole train in five minutes, and at one grand signal the Massacre commenced. Jack Redding as shot first in the hip I think not fatal. Ab Gentry next though not bad. I was in the lead, and running down to the boys, ordered Ab to fire, which he did, and down came the Chief and his horse. Ab, Jack, and Dock were near the center of the Train. Dock Brockman's turn came now; he is badly wounded, yet I think not fatally. Weddle and Bird Edwards were killed immediately. All the Edwards were scalped and left on the field for dead. Eight of Mr.



FIGURE 3 Robert McGee in a portrait taken about 1890 to support his pension claim (Library of Congress, LC-USZ62-105942).

Barrett's men were killed, the ninth and last cannot survive. Al and Bird Edwards lost their scalps, as did all that fell. Dock got on one of the Ponies and got into the Post which was 1 ½ or 2 miles off. They could not lend us any assistance for Indians were thick in the rear of the Post and only fifty men. Last evening we committed ten of our number to the silent tomb, and 5 are wounded out of 23. John Hiles was not with the train being out after an ox, which in all probability saved him. Ab and I kept firing at them which kept them in awe, so as to give the Dock time to get into the Post. This includes about all the casualties of our men.

The train being at the mercy of the Indians the destruction of the outfit commenced. The sheets all went; all of our clothing and bedding; but the grub fared best, they took some and left some. The flour sacks were cut open, I suppose to find something better than flour. Then came the turn for the teams. Barrett lost about 31 head; some shot in the yoke, the rest driven off. When the train was left, the teams were all fastened on the wagons, which was the cause of breaking some wheels axles and tongues. We got some in last evening, the rest will be brought in this morning by permission. The Soldiers are doing all they can to relieve us. I think Joseph Cornelius will loose [*sic*] one ox by a dart which was aimed at him; the only one I and the Boys will loose [*sic*]. Say to Mr. Barrett in behalf of Mr. Miles to let Mr. Bebe's friends know that he and his son are no more, which is two of the 8 he lost. I think I can furnish enough cattle to move all the wagons 35 miles to Ft. Larned and then I do not know what I shall do, or be compelled to do. I am not going on without protection. As a rough estimate our whole loss will be \$4500, mostly Mr. Barrett.

Mr. Crow's thoughts on the owners' losses was somewhat shy of what was sought in reparation payments from the U.S. government through depredations claims in 1873 (US 42nd Congress, 3rd Session, House Executive Document No. 62, Depredations by Kiowa and Arapaho Indians:1-16). Thirteen witnesses of the Walnut Creek event claimed \$6161.18 in losses. The affidavits describing their losses provide some of the best accounts of train organization and the attack of 18 July 1864.

Crow stated in his affidavit that he started from Fort Leavenworth on 27 June 1864 with a train of 21 or 22 wagons loaded with flour and wagon bows for delivery to Fort Union, New Mexico. He recalled that nine wagons belonging to Richard F. Barrett, under charge of John Hiles, also with government freight, followed a few miles behind. The two trains corralled together on the night of 17 July 1864 at the Big Bend of the Arkansas River. The next morning, July 18, about 10:00 o'clock in the morning the two trains sighted a band of Indians headed toward them. The trains, spread out over a half a mile in length, were about 1,700 steps (circa 4,200 feet, 1,270 meters) southeast of Fort Zarah on the wagon road. From 100 to 125 mounted Indians approached the train, dividing at the head of the train and riding down each side. The Indians were friendly, greeting the teamsters and

asking for and receiving tobacco. After riding nearly the length of the trains the warriors opened fire on the teamsters with bows and arrows and firearms.

The result was 10 men killed and 5 wounded. The warriors sacked the wagons, taking the wagon covers or sheets and destroying 132 sacks of flour by cutting them open and dumping the flour on the ground. They took the empty sacks. Two of Crow’s wagons were so badly damaged he had to abandon them.

The loss to the Government was the 132 sacks of flour. Richard Barrett and Jerome Crow each claimed significant personal losses as did 12 surviving teamsters.

Losses reported totaled:

| | |
|---------------------------|----------|
| Bacon, pounds | 1,750 |
| Blankets | 9 |
| Boots and shoes, pairs | 11 |
| Buffalo robes | 9 |
| Canteen | 1 |
| Coffee and sugar, pounds | 106+ |
| Colt revolver | 1 |
| Cooking utensils, sets | 2 boxes |
| Flour, sacks | 18 |
| Gloves, pairs | 4 |
| Gum coat and leggings | 1 |
| Handkerchief | 2 |
| Hats | 3 |
| Horse, saddle, and bridle | 1 |
| Knife | 1 |
| Log chains | 26 |
| Medicine chest | 1 |
| Mess chests | 2 |
| Overalls | 1 |
| Oxen | 36 |
| Ox yokes | 10 |
| Pants | 25 |
| Pocketbooks with money | 3, \$60+ |
| Quilts | 3 |
| Rifle | 1 |
| Saddlebags | 2 |
| Socks, pairs | 32 |
| Shirts | 48 |
| Soldier’s blouse | 1 |
| Tobacco, pounds | 29 |

| | |
|-------------------|----|
| Underwear/drawers | 17 |
| Valises, bags | 16 |
| Vests | 8 |
| Wagons | 2 |
| Wagon sheets | 53 |

Those reporting these losses included Richard Barrett, wagon train owner, Jerome Crow, wagon train owner and wagon master; James L. Riggs, assistant wagon master for Crow; John Hiles, wagon master for Barrett; James Brockman, wounded across abdomen; Jesse Brown; Joseph K. Cornelius; P. V. Cowen; Albert Edwards, Albert M. Gentry wounded in left arm; James C. Knight; Henry Porter; W. S. Redding, wounded in the head; and James Schroder. Neither of the two scalping survivors, Allen Edwards or Robert McGee, reported any claims. However, both applied for government pensions many years later. Edwards reported he made a pension claim (*Topeka Daily Capital*, 4 May 1906), but no such claim has been found to date. McGee did file a pension claim which was granted (1893 Senate Executive Document, 52nd Congress, Second Session, Report No. 1230:1-2). Schulz (1996:102-103) identifies two other teamsters, Willis S. Bonham and Robert Neglee, who did not apply for claims.

The 10 men killed are identified in the previously cited newspaper accounts and sources as Oliver Hazard Perry Beabee, Enos Beabee (age 16), James Laswell or Lossel (age 23), Robert Lucas (age 22), Lewis Sampson, Taulbird O. Edwards, Enos Gardner, William Weddle (age 35), and two African Americans, Charles and Perry (Kansas Historical Society archaeological files, 14BT301 – burials).

Archaeological investigations

I heard the story of the Walnut Creek burials while doing my PhD research at Fort Larned National Historic Site in the summer of 1973. Some 46 years later, while reviewing some new research on iron projectile points, I recalled the Walnut Creek excavations. I contacted State Archaeologist Robert Hoard and Tim Weston of the Kansas Historical Society regarding the Walnut Creek exhumation collection. Other than a publication on the skeletal remains (Finnegan 1976) no report of the work had been completed. The Kansas Historical Society generously allowed me to borrow the artifacts for study and forwarded the digitized records of the excavations and related research files. The excavation notes, records, photographs, and maps are a testament to the standards that the Kansas Historical Society archaeology program has maintained for many decades. It is not an overstatement to say that everything I needed to reassess the artifacts and reconstruct the artifact associations with the skeletal remains is in those files. I have had the opportunity to work with many older archaeological and archival collections throughout my career, some were good, many were of varying quality, but Witty's and the KSHS Walnut Creek records are excellent and of the highest caliber.

Forensic anthropologist Michael Finnegan analyzed skeletal material and published the only anthropological or archaeological record of the remains (Finnegan 1976). When Finnegan examined the remains they were in a very fragile state due to being waterlogged then drying out rapidly. Some were treated with various glue solutions commonly used at the time. Some skeletal elements were missing due either to being overlooked in the muddy excavation conditions or having deteriorated. At some point during recovery or storage the bones had become partially comingled. Finnegan (1976:738) re-associated the remains using excavation photographs and short wave ultra-violet light as aids. Finnegan (1976) identified all of the burials as males ranging in age from about 15 years of age to over 45.

The excavations

The mass grave area situated on a meandering bend of Walnut Creek approximately 1,480 m southeast of the site of Fort Zarah is quite close to the distance reported by Crow in his depredation claim. Due to disturbance by law enforcement the actual size and location of Grave Pit 1, containing Burials 9 and 10, was not precisely determined. Grave Pit 1 was located south of Grave Pit 2 and was separated from it by approximately 1 m. Grave Pit 2 was about 3.6 m long north to south and about 2.4 m wide. Muddy conditions prevented the team from clearly defining the grave pit edges (Figure 4).

Grave Pit 1 contained the skeletal remains of two individuals, apparently buried side by side with heads to the west and feet to the east. The skeletal remains in Grave Pit 1 were exhumed by law enforcement and were later assigned burial numbers 9 and 10. Burial 9 was determined to be a 40+-year-old male of African descent. Stature could not be determined, and no artifacts were found in association with the burial. Burial 9 was noted to have had poor dental health with 22 carious



FIGURE 4 Grave Pit 2 with remains of Burials 1–8. Pin flags denote the find locations of 18 of the iron arrowheads and buttons associated with the remains. A total of 33 artifacts was recovered. Image from KSHS.

lesions found on the teeth. Burial 10 is identified as an approximately 18-year-old male of African descent. No anomalies, trauma, or pathologies were noted, nor were any artifacts found with the remains.

Eight individuals are represented by the skeletal elements in Grave Pit 2. The burials, numbered 1 through 8 from north to south, were found laid side by side with heads to the west and feet to the east. The burials were given feature numbers at the time of recovery. Burials 1 through 8 were given Feature numbers 135, 136, 137, 138, 139, 140, 141, and 142 respectively.

Burial 1, Feature 135, is identified as a white male approximately 35–45 years of age with a stature of 187 cm. The teeth had evidence of nine carious lesions with an abscess on the maxillary dentition. The teeth also exhibited severe enamel hypoplasia on the canines and lower third molars suggesting some type of nutritional stress at some point in the individual's life. This older male also had an anomalous perforated corpus of the sternum and a depressed pit on the right clavicle's costal tuberosity. The right humerus has a bone spur on the supracondyloid process (Finnegan 1976:740).

The only artifacts associated with Burial 1 are four fragments of thin curved iron, possibly tin can body fragments (catalog number 12451) and a piece of jasper. The jasper lithic material is not among the artifacts examined.

Burial 2, Feature 136, is identified as a white male of approximately 16 years of age. No stature measurements could be obtained. The only anomaly found on this skeleton was a bone spur on the right humerus. A metal button (cat. 12434) was found under a vertebra, and two iron projectile points (cat. 12440, 12441) were found on the left side in the vertebral area and on the left pelvic area with point oriented upward in the body (Figures 5 and 6). Two white Prosser molded buttons were recovered in the burial fill (cat. 2621 and 2622) but no location is given (Figure 7).

Burials 1 and 2 are believed to be the remains of wagon master Perry Beebee and his son Enos based on the age of the two individuals and proximity of their remains to one another.

Burial 3, Feature 137, is identified as a white male who was approximately 15 years of age. The dentition of Burial 3 had a Carabelli's cusp on the first molar but no other pathologies or anomalies. An iron button (cat. 12436) was found in the center of the pelvic area and an iron projectile point (cat. 12443) was found in the same area but to the left side. This projectile point has cancellous bone adhering to it that is consistent with striking a femur head. A small metal projectile point (cat. 5535) is recorded as Feature 145 and was located in chest area near a lower arm bone.

Burial 4, Feature 138, which was positioned slightly overlapping Burial 3, is identified as a white male of approximately 23–33 years of age with an estimated stature of 174 cm. The dentition exhibited hypoplasia on the upper and lower central incisors. Four artifacts, two buttons and two iron projectile points, were associated with the remains. A Prosser molded button (cat. 12430) was found near the ribs on the right side and a second molded button (cat. 12435) was recovered under the vertebrae. One iron projectile point (cat. 12437) was found in the rib cage area and the second (cat. 12438) was lodged in two ribs. The second point has unidentified wood adhering to the point's base. The specific locations of these finds



FIGURE 5 Iron buttons associated with the burials. Top – 12436, second row left to right – 12428, 2621, 12434, 12452, and 5534.

is not recorded in the records although Finnegan’s [Table 1 \(1976:749\)](#) indicates the points were found in the lower left abdomen and near the left elbow. A third projectile point, Feature 144 (cat. 2625), is recorded as being found near the right elbow, not the left.

Burial 5, Feature 139, is a white male who was greater than 40 years of age. Two carious lesions and an abscessed tooth on the maxillary dentition were identified. The abscess connected to the sinus. Two mandibular molars were lost on each side of the lower jaw sometime prior to death. Finnegan’s [Table 1 \(1976:739\)](#) indicates there were two iron projectile points, one each in the chest area and near the left wrist. There was also a Prosser molded button near the lumbar vertebrae (cat. 2624) and a second (cat. 12452) which is identified as being found between the skulls of Burials 4 and 5. The catalog shows two projectile points (cat. 12442 and 12445). The first was located in the upper right pelvic area and below it. The first projectile point has what appears to be cotton shirt fabric adhering to one side ([Figure 8](#)). The second point is identified as Feature 147 and was recorded as being in association with the left distal ulna, radius, and phalanges. The arm was extended and under the skulls of Burials 4 and 3.

Burial 6, Feature 140, is identified as a white male of approximately 17 years of age with an estimated stature of 172 cm. The teeth exhibited a Carabelli’s cusp on



FIGURE 6 Iron arrowheads associated with the burials. Top row – left to right – 2625, 2626, 2627, 12550, 12441, 12442, 12443, Bottom row left to right – 12444, 12437, 12438, 12439, 5535, 5536.

the first molar and dental hypoplasia of the right maxillary canine and the third molar. No other pathologies or anomalies were noted. Finnegan (1976:739) noted that a projectile point was found on the right side, but it is not in identified in the catalog list. Two Prosser molded buttons are associated with the burial. One white Prosser molded button (cat. 12448) was found near the left femur. The catalog also has a transfer printed button (cat. 12431) located in the pelvic area and between Burials 6 and 7. Burial 6 is believed to be the remains of Taulbird (aka Talbot) Edwards based on information provided by his descendants in correspondence with the KSHS (file 14BT301-burials).

Burial 7, Feature 141, is identified as a white male with an age range of 23–33, who lost one left maxillary first molar antemortem. Finnegan (1976:739) indicates that two projectile points were found in the right shoulder area. Catalog records show there are five artifacts associated with Burial 7. A black Prosser molded button (cat. 12429) along with two white Prosser molded buttons (cat. 12432 and 12433) were found in the left shoulder area. Another white Prosser molded button was found east of the skull (cat. 2623). In the pelvic region a wire frame



FIGURE 7 Bone and Prosser molded buttons found associated with the burials. Top row – Bone button 12450. Middle row, left to right – 12429 (black button), 2622, 12430, 12431b (calico button). Bottom row, left to right – 12433, 12435, 12249, 12432, 12448 (pie crust design button).

buckle (cat. 12446) was found. An iron projectile point was found between the rib cages of Burials 7 and 8 (cat. 12439). One additional white Prosser molded button (cat. 12449) is noted as being found about 60 cm east of Burial 7.

Burial 8, Feature 142, is identified as a white male of about 14 years of age. The dentition shows developmental defects on the crowns of the maxillary left canine and central incisors. Finnegan (1976:739) suggests these may be signs of nutritional distress at an earlier life stage. A single iron button (cat. 12428) was recovered in the rib cage. An iron projectile point (Feature 148, either cat. 5535 or 5536) was found under the skull when it was removed.

Feature 143 is two iron projectile points (cat. 2626 and 2627) found in the vicinity of Burials 7 and 8. The first point has wood and bone adhering to it. The wood is unidentified but has the general shape of an arrow shaft hafting area. The second point (cat. 2627) had been embedded in bone with a good deal of cancellous tissue, such as the head of a humerus, femur, or tibia.

Finnegan (1976) was unable to re-associate all bones with individual burials due to their fragmented nature. He did observe a healed fracture of an unassociated distal left tibia. The remainder of the unassociated bone material was unremarkable for pathologies, anomalies, or trauma.

TABLE 1
IRON PROJECTILE POINT MEASUREMENT DATA (AFTER KENNEDY 2009)

| Catalog number | Max. length mm | Max. blade width | Blade length 1 | Blade length 2 | Stem/ tang length 1 | Stem/ tang length 2 | Max. stem width | Min. stem width | Stem serration count | Thickness | Weight (g) | Tip shape | Blade shape | Shoulder shape | Shoulder angle | Stem shape | Stem margin | Base shape | Comment |
|----------------|----------------|------------------|----------------|----------------|---------------------|---------------------|-----------------|-----------------|----------------------|-----------|------------|-----------|-------------|----------------|----------------|------------|----------------------------------|--------------------|---|
| 12437 | 33.2 | 26.4 | 25.1 | 25.5 | 74 | 6.3 | 8.2 | 6.2 | 0 | 2.0 | 18 | rounded | straight | angled | obtuse | expanding | straight | straight | moderately oxidized |
| 12442 | 56.6 | 15.0 | 46.8 | 47.2 | 95 | 94 | 74 | 70 | 0 | 2.3 | 39 | rounded | straight | angled | obtuse | straight | straight | straight | moderately oxidized, fabric adhering |
| 12443 | 58.4 | 14.7 | 49.7 | 48.2 | 8.5 | 8.5 | 70 | 6.7 | 2 | 2.4 | 49 | pointed | straight | angled | obtuse | straight | serrated | straight | heavily oxidized, embedded in bone |
| 12444 | Inc. | Inc. | Inc. | Inc. | Inc. | Inc. | Inc. | Inc. | Inc. | 2.2 | 33 | Inc. | straight | angled | obtuse | straight | serrated | straight-irregular | heavily oxidized |
| 12438 | 47.6 | 13.8 | 37.0 | 37.5 | 98 | 10.0 | 10.1 | 8.8 | 0 | 3.3 | 33 | rounded | straight | angled | obtuse | straight | straight | straight-irregular | heavily oxidized with wood adhering |
| 12439 | 65.0 | 18.9 | 54.1 | 54.0 | 106 | 109 | 11.4 | 10.1 | 2 | 2.2 | 4.5 | rounded | straight | angled | obtuse | expanding | straight sided barbed and footed | straight | moderately oxidized, tip broken but present |
| 12440 | Inc. | 14.8 | Inc. | Inc. | 8.7 | 8.9 | 8.6 | 6.1 | 1 | 2.7 | 33 | Inc. | straight | perpendicular | straight | expanding | straight footed | straight | heavily oxidized, tip gone |
| 12441 | 43.5 | 15.2 | 36.8 | 36.5 | 74 | 6.3 | 7.8 | 6.5 | 1 | 2.7 | 2.7 | pointed | straight | Angled | obtuse | expanding | serrated | straight | heavily oxidized |
| 2625 | Inc. | 18.1 | Inc. | Inc. | 8.9 | 8.2 | 9.3 | 8.0 | 0 | 3.6 | 5.2 | Inc. | straight | perpendicular | straight | expanding | straight footed | straight | heavily oxidized, tip missing |

| | | | | | | | | | | | | | | | | | | | |
|------|------|------|------|------|------|------|------|------|------|-----|-----|---------|----------|--------|----------|-----------|-----------------|----------|--|
| 2626 | 54.3 | 15.9 | 46.3 | 45.1 | 8.8 | 94 | 74 | 70 | 0 | 34 | 40 | pointed | straight | angled | obtuse | straight | straight | straight | heavily oxidized, wood adhering to base |
| 2627 | Inc. | Inc. | Inc. | Inc. | Inc. | Inc. | Inc. | Inc. | Inc. | 3.2 | 5.0 | Inc. | straight | angled | straight | Inc. | Inc. | Inc. | heavily oxidized, embedded in bone, base and tip missing |
| 5535 | 30.4 | 13.2 | 23.3 | 23.2 | 23.7 | 23.1 | Inc. | 6.6 | 0 | 2.4 | 1.4 | rounded | concave | angled | obtuse | expanding | straight footed | straight | heavily oxidized, one side footed base missing |
| 5536 | 4.71 | 1.50 | 3.83 | 3.83 | 6.8 | 6.8 | 8.6 | 7.9 | 0 | 3.1 | 3.6 | rounded | straight | angled | obtuse | straight | straight | straight | heavily oxidized |

All points are made of iron

Inc = Incomplete



FIGURE 8 Photomicrograph of the fabric adhering to iron projectile point, catalog 12442.

Three buttons were found in the excavation backfill or not clearly associated with any burial. The only bone button (cat. 12550) is listed as Feature 133. It is noted as being found on the east edge of Grave Pit 2. One button (cat. 2620) was absent from the collection at the time of analysis, and button 5534 has no provenience.

Buckle and buttons as representations of clothing

Clothing worn by or buried with the decedents is represented by three artifact types. One is the wire frame buckle found in the pelvic area of Burial 7. The artifact is not in the collections examined. It is speculated the buckle may have been a suspender strap adjuster buckle or more likely a trouser waist band adjuster buckle (Kidwell and Christman 1974). The second artifact type is a piece of woven fabric that is adhering to iron projectile point, Catalog 12442, found in back of the pelvic area of Burial 5. Viewed under 13.7× magnification using Dino-Lite digital microscope the weave pattern is clearly discernable. The loose weave pattern is consistent with cotton cloth, quite probably a calico. Originally from India, calico was a widely used cotton cloth throughout the eighteenth and nineteenth centuries. English calico was white but in the US calico commonly refers to a printed fabric (Potter and Hanson 2014:385–414). Calico was used for shirts as well as other garments and non-garment functions. No evidence of dye or design remain on the fabric, if any was ever present. The third artifact type, buttons, is

the most common artifact recovered during the excavations. One bone button, 6 iron buttons, and 11 Prosser molded ceramic buttons were distributed among burials (2 through 8).

The bone button is a type commonly found on nineteenth century undergarments and occasionally on shirts and coats. The size of the single bone button, 15 mm in diameter, is more consistent with an undergarment or a coat (Kidwell and Christman 1974).

The metal buttons are very oxidized, but all appear to be pressed four-hole sew through buttons. The six iron buttons are all about 20 mm in diameter with some measurement variation due to the oxidized condition. These are typical of trouser waist band and fly buttons or suspender attachment buttons. Metal buttons were also used on coats and shirts. The shirt buttons were usually smaller in diameter than the recovered examples.

The Prosser molded or ceramic buttons vary in diameter from slightly under to slightly over 12.7 mm in diameter. This button type is predominately associated with placard front shirts in the mid to late nineteenth century (Brown 1999; Hunt 1986; Sprague 1983). They were also used on undergarments.

Burial 2 had one iron button (cat. 2621) and two ceramic buttons (cat. 2622 and 12434) associated. Only one ceramic button find location was noted, and that was found in the spinal column area. The suggestion is that this 14-year-old white male was wearing trousers and a shirt.

One iron button was found with Burial 3. Its provenience is not noted.

Burial 4 had two ceramic buttons associated (cat. 12430, 12435), and one iron button (cat. 12452) was found between the skulls of Burials 4 and 5. The two ceramic buttons were recovered near a right rib and a vertebrae. This suggests that the individual was wearing a shirt.

Burial 5 had one ceramic button (cat. 2624) and the iron button (cat. 12452). These were found between the skulls of Burials 4 and 5.

Burial 6 had two associated ceramic buttons. One had the pie crust design (cat. 12448) and was found near the left femur. The second, a calico print button (cat. 12431), was found between the pelvic areas of Burials 6 and 7. The buttons' find locations suggest the individual was wearing an undergarment or a shirt.

Burial 7, in addition to the calico button found between Burials 6 and 7, had three ceramic buttons associated along with the wire frame buckle. The buttons are of mixed types: one is black (cat. 12429) found near a shoulder, one of the pie crust design (cat. 12432) also found near a shoulder, and one a plain white button (cat. 12433) that was found in the pelvic region. One suggestion is the individual was wearing trousers and a shirt, with several mixed replacement buttons, perhaps indicating an older garment.

Burial 8 had one iron button (cat. 12428) found near a rib. A white ceramic button (cat. 12449) was found about 60 cm east of remains. Its specific association with remains is not clear.

The buckle and buttons suggest the men were wearing typical clothing of the mid-nineteenth century when they died. The absence of definitive evidence of coat type buttons suggest they were attired in trousers and shirts suitable for the July temperatures commonly encountered on the Great Plains. They went to their graves

wearing their simple work clothes or some component thereof. The recovered buttons and buckle are also consistent with the types of clothing reported lost by the surviving wagon owners and teamsters as shirts, under drawers, or pants as listed in their depredation claims.

Arrows and arrow wounds and comments on other wounds

Thirteen iron projectile points – arrowheads – were recovered with the skeletal remains. There is a small number of publications that discuss metal arrowheads associated with humans or human remains. The most important of these is Circular 3 from the Surgeon General's Office (US War Department 1871) that discusses arrow wounds and their treatment from 1865 to 1871. The majority of the cases discussed, some 70 cases, proved fatal. The Circular divides the cases into head and neck injuries, extremities, chest, and miscellaneous. The treatise describes arrow wounds of various sorts and their treatment. It also discusses potential survivability of the sharp force, penetrating, and incised trauma caused by metal projectile points. Other army surgeons also made observations on the wound effect and lethality of metal projectile points (Bill 1862; Coues 1866). Bill's extensive study of arrow wounds covers the late 1850s up to the beginning of the American Civil War. These studies are largely observational and anecdotal, although Bill (1862:365; 1882) observed that if one arrow hit a mark two or three more were likely to follow with the result being, more often than not, death. The Walnut Creek burials largely conform to Bill's observation that if a victim has one arrow wound there are likely to be others.

Type and wounding

The 13 metal points are all iron and all but two appear to be cutler made, meaning that they were trade points made in Euro-American craft shops for sale or distribution to Native Americans (Alhambra 2015; Anonymous 2001; Hanson 1972). The iron projectile points are moderate to small in size with either straight, serrated, or footed hafting tangs. The styles are consistent with known Great Plains iron projectile points (c.f. Alhambra 2015; Boyer 2012; Gelo 2013; Hanson 1972; McGonagle 1973; Pyszczyk 1999; Scott et al. 1989). In particular the projectile point morphology is consistent with others found in the Central Great Plains region (Kennedy 2009) and apparently favored by Native Americans inhabiting that area. Within Kennedy's classification system the recovered points are considered of an average blade length, although two fall into the short category. Kennedy studied over 400 projectile points from the west. However, only five were from Kansas, nine from Oklahoma, nine from Nebraska, and 13 from Colorado. His largest data set was 140 from Wyoming. The Walnut Creek iron projectile point data set increase the Kansas sample size by 260%.

Two points have bone adhering to them. Catalog 2627 is an incomplete point and has large fragments of cancellous bone covering the point. The second point, Catalog 12443, has large solid bone masses surrounding the point. Both were likely embedded in boney structures, which appear to have deteriorated. Two

points, Catalog nos. 2626 and 12438, have wood adhering to one side. The wood on Catalog 2626 is of undetermined origin and source. The wood is rounded at the upper end and relatively narrow. It is possible the wood is the remains of the arrow shaft. The second point, Catalog 12438, has some unidentified wood adhering to one side. It may be a plant root.

Two points appear to be camp made (cat. 12438 and 5536) given their slightly asymmetrical shape and handmade appearance. These two points conform in style and construction method to camp made iron arrowheads recovered from a November 1864 Kiowa camp attacked and destroyed by Col. Kit Carson, the first battle of Adobe Walls, Texas (Lynn 2014:199–200). The other 11 appear to be cutler made, formed from thin iron stock in jigs or forms then filed to final shape and sharpness.

Catalog 12442 has fabric adhering to one side. Viewed under 13.7× magnification the weave pattern is clearly discernable. The loose weave pattern is consistent with cotton cloth, quite probably a calico, as previously noted.

The location of the points, largely in the pelvic and spinal areas, is consistent with the most difficult arrow points to remove and the area of the body where the most damage occurs. Arrows cause puncture and incised wounds (Karger et al. 2001). Several modern studies of bow and arrow wounding function using pigs as human proxies and ballistic gelatin as tissue simulant have demonstrated arrow wound capability. Karger et al. (1998) noted, as did Kooi (1991), that arrows have an initial velocity of 44.8–74.5 meters per second and a penetration range of 17 cm to 60 cm depending on whether tissue only or tissue and boney structures are hit. MacPhee et al. (2018) studied arrow penetration and function using ballistic gelatin with bone embedded in the media to test the effect of tight and loose fitting clothing on arrow ballistics and wounding effect. The broadhead point that MacPhee tested, which is most similar to the historic iron points found at Walnut Creek, resulted in the most damage to the ribs, spinal column, and femur. He also noted that fabric was carried into the wound track which, left untreated, would cause infection to occur.

One arrow capability study, carried out by an archaeologist (Tomka 2013), controlled for the bow draw weight and arrow weight to determine velocity and penetration capability. His work largely replicated that of Karger et al. (1998) but added significantly to arrow function studies, especially as they apply to early hunting and warfare activities. Tomka found using bows with a draw weight of 18, 20.4, and 22.7 kg of pull firing arrows ranging in weight from 22 to 34 g that velocity ranged from 40.4 to 57 mps. He found that penetration ranged from 11 to 17 cm into a standard archery target. He also noted that the most accurate shots occurred between 25 and 33.3 m or less.

The historic accounts place the warriors attacking the wagon train at short range, which most likely increased not only their accuracy of fire but the wounding effect of the arrows they shot at and into the teamsters. The archaeological record of damage caused by the arrows is entirely consistent with the replication and validation studies cited as well as the medical literature on arrow wounds in the nineteenth century.

One artifact type that is noticeably absent in the collection is lead bullets. The historic accounts clearly indicate that some of the teamsters and warriors had firearms. They were discharged by both sides, yet there are no bullets in the collection. Witty's notes on the recovery excavation state that he tried to use a metal detector in Grave Pit 2 but the machine was not working. It is entirely possible, given the muddy recovery conditions, that small lead balls covered in wet mud could easily be overlooked in the excavation process. However, Finnegan (1976) did not observe any bullet related trauma on the bones during his examination. Perhaps they passed through the bodies where they were killed and did not accompany them to their grave.

Conclusions

Conflict along the overland trails resulted in deaths to non-Native travelers and Native Americans alike. The Walnut Creek burial site epitomizes those conflicts and the limited physical evidence that often accompanied those who died to their graves. The men and boys who died at Walnut Creek on 18 July 1864 were all teamsters on freight wagons. The reports say they were stripped and likely scalped. The buttons and buckle suggest that some clothing, perhaps too bloody to be of use to the Native victors, was not taken and the victims were buried in remnant clothing of trousers and shirts. No evidence of footwear was found during the excavations. Shoes or boots may have been taken by the warriors or removed by the burial party.

Evidence of their death is abundant in one way. That evidence is in the form of 13 iron projectile points found in and near the skeletal remains.

The 10 teamsters were a mix of young and adult males. There were eight white men and two African-American men who died that day. As was probably the case in life, the white and African-American males were segregated in death as the two African-Americans were buried in a separate but nearby grave pit. Historical documents provide full names of most of the men but only first names for the two Black men. Additional research in genealogical records may reveal more about those who died in addition to the father and son and one other individual can be identified.

Conflict on the overland trails was sometimes bloody and regularly difficult. These 10 teamsters likely reflected the norm for the ages of those who freighted on the Santa Fe Trail and most likely the ethnic or ancestral affiliation of many of those who manned the wagons on the trail. They also represent what can be learned from combining archaeological and historical research to reach a greater, more unified, understanding of past events.

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